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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/070,651

08/19/2002

Ing Carl Kramer

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10/19/2006

EXAMINER

MORILLO, JANEL COMBS

Don W Bulson
Renner Otto Boisselle & Sklar
1621 Euclid Avenue
19th Floor
Cleveland, OH 44115

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,651

Applicant(s)

KRAMER, ING CARL

Examiner

Janelle Combs-Morillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-19, 25, 29-32, 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson (US 4,444,556).

Concerning independent claims 17 and 36, Andersson teaches a device for cooling longitudinal sections of metal (abstract, Fig. 2) after treatment in a heating device such as an induction furnace (column 1 line 12). Said cooling device contains jets axially in groups along the horizontal axis, said jets operable at different pressures/intensities and operating times (column 2 lines 40-44, column 3 lines 19-20, 23), and therefore teaches a control system for switching the groups of spray nozzles. Anderson teaches said device is configured in a horizontal orientation (see Fig. 1-3), and that "cooling fluid tubes which extend longitudinally and are arranged as a group or cluster so as to collectively encircle the hot tube being cooled" (column 2 lines 38-40).

Though Andersson teaches the tubes are continuously traveling (column 1 line 17), and does not specify a process control system for holding the block axially stationary, it is held to be within the device taught by Andersson to hold the block axially stationary relative to the spray nozzles. Because the prior art teaches a device with a plurality of spray nozzles operating at different temperatures and pressures in a horizontal configuration, and said device is held to be

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operable for stationary members, it is held that Andersson has created a prima facie case of obviousness of the presently claimed invention.

Concerning claims 18-19, 25, 29-30, 32, 37, as stated above, Andersson teaches cooling device comprising nozzles in an annular arrangement (Fig. 1-3), operable for different times, temperatures, and pressures.

Concerning claims 31 and 36, because the cooling device taught by Andersson operates at different parameters, said device is operable to provide a temperature taper (cl. 31).

3. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of EP 696707 (EP'707). Andersson is discussed in paragraph 2 above.

Andersson does not mention said heating device uses gas burner flames.

However, EP'707 teaches that a gas regenerative burner flame means is a useful for heating furnaces to high temperatures (column 2 lines 15-16) in an efficient manner (column 2 lines 41-42) and with minimal heat loss (column 7 line 9). It would have been obvious to one of ordinary skill in the art to use a gas regenerative burner flame means, substantially as taught by EP'707, for the initial heating means of the longitudinal member taught by Andersson, because EP'707 teaches that said means is useful for heating to high temperatures with minimal heat loss.

4. Claims 20-22, 26-28, 33-35, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Bessey et al (US 4,825,677). Andersson is discussed in paragraph 2 above.

Andersson does not teach a block holder and clamping means for said longitudinal member, or a means for transporting said member from the heating to the cooling devices. However, Bessey teaches clamping can be used to transfer members from heating to cooling

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devices (column 4 lines 22-25, column 11 lines 30-43). It would have been obvious to one of ordinary skill in the art to use a clamping means, substantially as presently claimed, in the device for treating longitudinal metal sections taught by Andersson, because Bessey teaches said clamping can be used to transfer members from heating to cooling devices (column 4 lines 22-25, column 11 lines 30-43).

The manner of operating the device does not differentiate apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (The preamble of claim 1 recited that the apparatus was "for mixing flowing developer material" and the body of the claim recited "means for mixing ..., said mixing means being stationary and completely submerged in the developer material". The claim was rejected over a reference which taught all the structural limitations of the claim for the intended use of mixing flowing developer. However, the mixer was only partially submerged in the developer material. The Board held that the amount of submersion is immaterial to the structure of the mixer and thus the claim was properly rejected.). Because the prior art teaches an apparatus for heating and cooling longitudinal members, including a clamping means, the manner the clamping means is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus, the rejection is held to be proper.

5. Claims 25, 32, 37, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Biswas (US 5,802,905). Andersson is discussed in paragraphs above.

Andersson does not teach the spray nozzles are configured axially in groups in the form of a cooling ring, said spray nozzles groups collectively surrounding the spraying area. However, Biswas, though drawn to a vertical configuration, teaches that cooling rings of spray nozzles which form cooling zones, are effective for providing precise control of temperature distribution while cooling (column 3 lines 37-57). It would have been obvious to one of ordinary skill in the art to apply the spray nozzles in cooling rings taught by Biswas to be effective in forming precise cooling zones to the horizontal cooling device taught by Andersson, because Biswas teaches said apparatus forms a temperature distribution sufficient for optimizing extrusion speed (column 3 lines 61-63).

Response to Amendment/Arguments

6. In the response filed on August 8, 2006, applicant amended claims 17, 25, 32, 33, 36, 37, and added new claim 41.

7. Applicant's argument that the present invention is allowable over the prior art of record because Andersson's nozzle groups are spaced along the length of the cylinder and therefore operable exclusively in an entire group (thereby distinguished over instant indep. cl. 17 and 36, 41), or the nozzles of Andersson are not operable individually or in groups at different pressures (cl. 19), has not been found persuasive. Though the nozzles of Andersson are connected by a longitudinal pipe/water source of the nozzles, column 3 lines 19-20 and 28 of Andersson teaches that nozzles may be individually controlled to provide a spray pattern or cooling intensity as desired. The nozzles taught by Andersson are held to be operable in groups at more than one pressure/ intensity.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCM 
October 11, 2006


ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER